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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/082,875

02/26/2002

Katsuya Matsunaga

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09/29/2004

DILLON & YUDELL LLP
8911 N. CAPITAL OF TEXAS HWY.,
SUITE 2110
AUSTIN, TX 78759

EXAMINER

LEFLORE, LAUREL E

ART UNIT

PAPER NUMBER

2673

9

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,875

Applicant(s)

MATSUNAGA, KATSUYA

Examiner

Laurel E LeFlore

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6,13-16,18,20,21,23,25,27,28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,13-16,18,20,21,23,25,27,28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1, 2, 4, 6, 13-16, 18, 20, 21, 23, 25, 27, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 15 recite that "operation of the respective switches of said open-close members is effected by sandwiching said finger support member between two provided fingers." However, the switches of the respective open-close members can be operated whether or not the finger support member is sandwiched between two fingers. That is, the finger support member could be resting flat on the main unit and one could still operate the switches of the open-close members.

Claims 13, 23 and 27 recite, "said switches being operable when the provided fingertips are placed between said main unit and said finger support member when said finger support member is pivoted in an open state". Again, the finger support member need not be pivoted in an open state and the fingertips placed between the main unit and the finger support member in order to operate the switches.

Claim Objections

1. Claims 2, 4 and 6 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s)

in proper dependent form, or rewrite the claim(s) in independent form. Claims 2, 4 and 6 recite the same limitations as each other and are all dependent on claim 1.

2. Claims 16, 18 and 20 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 16, 18 and 20 recite the same limitations as each other and are all dependent on claim 15.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4, 6, rejected under 35 U.S.C. 103(a) as being unpatentable over Jondrow et al. 5,416,479 in view of Kress 5,949,406.

5. In regard to claim 1, Jondrow discloses an input unit comprising a sensor which detects a displacement. See column 2, lines 28-31, disclosing, "movement of the handle 30 is sensed by a sensing system, which encodes the motion of the handle 30 and provides to the computer 32 digital information representative of the position of the handle." Also see figure 1.

Jondrow depicts in figure 8 that the input unit further comprises a plate-like main unit (element 50) supporting said sensor. Note in figure 1 that the plate-like main unit supports the entire handle and thus supports the sensor. Further see column 2, lines

40-46, disclosing a position sensing system supported on the handle that may be incorporated with the invention of Jondrow.

Jondrow further discloses that the input unit comprises a finger support member pivotally coupled to said main unit. See element 57 of figure 8.

Note further in figure 2 that the sensor, said main unit, and said finger support member define a plate-like structure when said finger support member is pivoted inline with said main unit.

Jondrow further discloses at least two open-close members (elements 138 and 142 of figure 8), pivotally coupled to the main unit, each open-close member having a different switch coupled thereto. The two open-close members are pivotably coupled to the plate main unit on the pivot axis, since they are attached to the finger support section. Further see column 7, lines 17-21, disclosing, "The top case 57 is hinged to the base 50, and includes features for securing the two switches 84 beneath the finger operated left keycap 138 and right keycap 142."

Note that the sensor, main unit, finger support member and open-close members define a plate-like structure when the finger support member and the open-close members are pivoted inline with the main unit, as depicted in figure 2. Also see figures 7 and 10.

Jondrow does not disclose that operation of the respective switches of the open-close members is effected by sandwiching the finger support member between two provided fingers.

Kress discloses an invention in which operation of respective switches of open-close members is effected by sandwiching a finger support member between two provided fingers. See figures 1 and 2.

Kress further teaches in column 2, lines 15-19, "The finger support includes recessed areas configured to support two or more fingers of the user at a location on the mouse such that the user's fingers are correctly aligned and positioned relative to the mouse selector switches."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Jondrow by having operation of the respective switches of the open-close members effected by sandwiching a finger support member between two provided fingers, as in the invention of Kress. One would have been motivated to make such a change based on the teaching of Kress that such a configuration supports "two or more fingers of the user at a location on the mouse such that the user's fingers are correctly aligned and positioned relative to the mouse selector switches."

6. In regard to claims 2, 4, and 6, Jondrow discloses that the plate-like structure is storable in any one of a card slot and a free space of an information processing unit, as depicted in figure 1. Further see column 2, lines 23-25, disclosing, "The computer housing 36 includes a stowage compartment 38 into which the handle 30 may be inserted and stowed when not in use."

7. In regard to claim 15, see rejection of claim 1.

8. In regard to claims 16, 18, and 20, see rejection of claims 2, 4 and 6.

9. In regard to claim 21, see rejection of claim 1.

10. In regard to claim 30, Jondrow discloses an input device (see figure 1) comprising a plate main unit (element 44) and a first enabling switch and a second enabling switch mounted on the plate main unit (element 48). Note that keyboard 48 inherently has several switches. These switches are enabling switches, as best understood, in that their inherent function is to enable input upon activation.

Jondrow further discloses a finger support section pivotably coupled to the plate main unit on a pivot axis. See column 2, lines 19-22, disclosing, "FIG. 1 shows a preferred embodiment of a handle 30 that is connected to a computer 32 by a link 34 for use as an input device for the computer." Note the handle with link extending from the plate main unit of the figure. This is a finger support section, since one must rest fingers on this handle with mouse in order to operate it as an input device. Further see column 2, lines 59, disclosing, "The link 34 is connected to move with the handle 30." This is inherently a pivotal motion, since the link and handle are connected at one point and moved about that point.

Jondrow further discloses a first, second and third member pivotably coupled to the plate main unit on the pivot axis. Since the entire handle and linked are pivotably coupled to the plate main unit on the pivot axis (see previous paragraph), then all components of the handle and link are also moved. Three such components are the link and the two keycaps 138 and 142 (see figure 8 and rejection of claim 29).

Jondrow further discloses that the first and second members each have a respective input switch. See rejection of claim 29 for the second and third members (keycaps 138 and 142) having input switches.

Jondrow does not disclose a third member having a respective input switch.

Kress discloses an invention with three members each having a respective input switch. See elements 30, 32 and 34 of figure 3. Further see column 3, lines 4-7, disclosing, "a right selection key 30, a middle selection key 32 and a left selection key 34 that when activated cause the computer to perform a particular function".

Kress further teaches in column 4, lines 3-8, "The three finger mouse crown 38 is used with the mouse 18 because the mouse 18 includes three selector switches 30-34. Of course other mouse designs include two selector switches or even one selector switch. Therefore, it is within the design of the present invention to provide a mouse crown with other numbers of finger support areas."

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Jondrow by having a third member with a respective input switch, as in the invention of Kress. One would have been motivated to make such a change based on the teaching of Kress that with three such switches, activation can cause the computer to perform three specific functions. Kress further teaches that such a choice in number of switches is a design choice and mice have been commonly and conventionally designed with one, two or three switches.

It is further inherent in Jondrow that the first and second enabling switches define alternate input signals generated by the respective input switches of the first, second

and third members, since the first and second enabling switches are key inputs and the input switches of the first second and third members relate to position encoding and conventional mouse inputs.

Jondrow further discloses that, when not in use, the finger support section and first, second and third members fold flat against the plate main unit. See figure 1 and column 2, lines 23-25, disclosing, "The computer housing 36 includes a stowage compartment 38 into which the handle 30 may be inserted and stowed when not in use." Further see column 6, line 36, disclosing "the folded portion of the link extension piece".

Allowable Subject Matter

11. Claims 13 and 27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

12. Claim 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Amendment


13. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel E LeFlore whose telephone number is (703) 305-8627. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LEL
27 September 2004



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600